CLAIMS

1. A method for packet messaging in a communication system including a header compressor unit (20) and a header decompressor unit (22), comprising the step of

transmitting a mode change request involving a change from a first compression mode to a second compression mode from the header decompressor unit to the header compressor unit over a packet transfer link (11), and being **characterized by** the further steps of

indicating, at the header compressor unit, rejection of the mode change request towards the header decompressor unit;

performing, if the header decompressor unit is aware of the indicated rejection, a rejection acknowledgement action at the header decompressor unit, said rejection acknowledgement action implying a successful rejection; and

remaining, at the header compressor unit, in the first compression mode in response to a successful rejection.

2. The method of claim 1, **characterized in that** the indicating step comprises signaling, implicitly at or explicitly from the header compressor unit (20), rejection of the mode change request.

3. The method of claim 2, **characterized in that** the indicating step comprises sending a mode change rejection message from the header compressor unit (20) to the header decompressor unit (22).

4. The method of claim 3, **characterized in that** the mode change rejection message comprises a redefined mode value.

5. The method of claim 2, **characterized in that** the indicating step comprises ignoring, at the header compressor unit (20), the mode change request for a predetermined period of time.

6. The method of claim 3 or 4, **characteriz d by**, in case of an unsuccessful rejection by the mode change rejection message, further rejection signaling by ignoring, at the header compressor unit (20), the mode change request for a predetermined period of time.

7. The method of claim 1, **characterized in that** the rejection acknowledgement action involves decreasing the frequency of mode change request transmissions from the header decompressor unit (22) in response to the indicated rejection.

8. The method of claim 1, **characterized in that** the rejection acknowledgement action involves aborting further mode change request transmission from the header decompressor unit (22) in response to the indicated rejection.

9. The method of claim 8, **characterized in that** the rejection acknowledgement action involves sending a rejection acknowledgement message from the header decompressor unit (22) to the header compressor unit (20) in response to the indicated rejection.

10. The method of any of previous claims, **characterized by** the further step of determining, at the header compression unit (20), whether the rejection was successful by monitoring the packet transfer link (11).

11. The method of any previous claims, **characterized by** the further step of changing to the second compression mode at the header compressor unit (20) in case of an unsuccessful overall rejection procedure.

12. The method of any of previous claims, **characterized in that** the header compressor unit (20) is arranged to support only a subset of all possible compression modes.

13. The method of any of previous claims, **characteriz d in that** at least one of the header compressor unit (20) and the header decompressor unit (22) is implemented according to a robust header compression (ROHC) scheme.

14. The method of claim 13, **characterized in that** the first and second compression modes are selected from the group of a unidirectional (U) mode, a bidirectional optimistic (O) mode, a bidirectional reliable (R) mode and a bidirectional (B) mode, including combinations thereof.

15. A communication system for packet messaging comprising a header compressor unit (20), a header decompressor unit (22) and means for transmitting a mode change request involving a change from a first compression mode to a second compression mode from the header decompressor unit to the header compressor unit over a packet transfer link (11), said communication system being **characterized by**

means for indicating, at the header compressor unit, rejection of the mode change request towards the header decompressor unit;

means for performing, if the header decompressor unit is aware of the indicated rejection, a rejection acknowledgement action at the header decompressor unit, said rejection acknowledgement action implying a successful rejection; and

means for remaining, at the header compressor unit, in the first compression mode in response to a successful rejection.

16. The communication system of claim 15, **characterized in that** the means for indicating comprises means for signaling, implicitly at or explicitly from the header compressor unit (20), rejection of the mode change request.

17. The communication system of claim 16, **characterized in that** the means for indicating comprises means for sending a mode change rejection message from the header compressor unit (20) to the header decompressor unit (22).

18. The communication system of claim 17, **characterized in that** the mode change rejection message comprises a redefined mode value.

19. The communication system of claim 16, **characterized in that** the means for indicating comprises means for ignoring, at the header compressor unit (20), the mode change request for a predetermined period of time.

20. The communication system of any of claims 15-19, **characterized by** means for aborting further mode change request transmission from the header decompressor unit (22) in response to the indicated rejection.

21. The communication system of claim 20, **characterized by** means for sending a rejection acknowledgement message from the header decompressor unit (22) to the header compressor unit (20) in response to the indicated rejection.

22. The communication system of any of claims 15-21, **characterized by** means for monitoring the packet transfer link (11) to determine, at the header compression unit (20), whether the rejection was successful.

23. The communication system of any of claims 15-22, **characterized in that** the header compressor unit (20) is arranged to support only a subset of all possible compression modes.

24. The communication system of any of claims 15-23, **characterized in that** at least one of the header compressor unit (20) and the header decompressor unit (22) is implemented according to a robust header compression (ROHC) scheme.

25. The communication system of claim 24, **characterized in that** the first and second compression modes are selected from the group of a unidirectional

(U) mode, a bidirectional optimistic (O) mode, a bidirectional reliable (R) mode and a bidirectional (B) mode, including combinations thereof.

26. A header compressor unit (20) for packet data communication comprising means for receiving, from a header decompressor unit (22), a mode change request involving a change from a first compression mode to a second compression mode over a packet transfer link (11), and being **characterized by**

means for indicating rejection of the mode change request towards the header decompressor unit;

means for interpreting the signaling behavior of the header decompressor unit to determine whether the rejection was successful; and

means for remaining in the first compression mode in response to a successful rejection.

27. The header compressor unit of claim 26, **characterized in that** the means for indicating comprises means for sending a mode change rejection message to the header decompressor unit (22).

28. The header compressor unit of claim 27, **characterized in that** the mode change rejection message comprises a redefined mode value.

29. The header compressor unit of claim 26, **characterized in that** the means for indicating comprises means for ignoring the mode change request for a predetermined period of time.

30. The header compressor unit of any of claims 26-29, **characterized in that** the means for interpreting comprises means for monitoring the packet transfer link (11).

31. The header compressor unit of any of claims 26-30, **characterized by** being arranged to support only a subset of all possible compression modes.

32. The header compressor unit of any of claims 26-31, **characterized by** being implemented according to a robust header compression (ROHC) scheme with the first and second compression modes selected from the group of a unidirectional (U) mode, a bidirectional optimistic (O) mode, a bidirectional reliable (R) mode and a bidirectional (B) mode, including combinations thereof.
